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DCAF Bulletin

Design Construction Analysis Feedback

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CEMP-CE

Subject: EXHAUST VENTS FOR CLOTHES DRYERS

Applicability: Information

DISCUSSION: A number of situations have been observed during recent Design-Construction Evaluations in regard to the methods by which dryer exhaust vents are arranged in laundry rooms, primarily in barracks. There is usually a bank of dryers with the number being determined by the occupancy of the facility.

The ideal arrangement for these dryer vents is to provide an individual exhaust for each dryer to the outside with an easily accessible clean out for each exhaust. This will normally require that the laundry room be adjacent to the outside and that the dryer bank back up to the outside wall so that the exhausts go directly outside with a minimum run of exhaust duct. In this arrangement the dryer exhaust fan will push exhaust air out.


This arrangement is not always possible. When, because the designer is dealing with renovation of an existing facility or for some other design reason, the laundry room is not adjacent to an outside wall another solution is used. This most often involves an exhaust manifold plenum which is used to collect several dryer exhausts and convey the exhaust to the outside.

These exhaust plenums can cause a problem in that they must be sized to accommodate all of the dryers operating at once. When less dryers are in operation, there may not be enough air flow to conduct the lint in the exhaust air outside and it will collect in the plenum.

Many designs provide a fan in this exhaust plenum to supplement the air flow however some do not. Arrangements have been noted where such a plenum rises three stories vertically with no provision for an exhaust fan. Another arrangement was noted where the plenum exhaust fan was provided but it was operated by means of a manual switch located out of sight of the dryers. A better arrangement is to have the exhaust fan automatically activated by control circuitry when any dryer is in operation.

RECOMMENDATION: Particular attention should be devoted to exhaust systems for dryers in laundry rooms during BCOE reviews. Individual, direct to the outside, dryer vents are best. Ample provision for cleaning out the lint which can accumulate should be provided. The cleanouts should be as easy to operate as possible and not require tools to open them. If the design of necessity must include an exhaust plenum, this should have a "booster" fan preferably with the motor external to the exhaust air flow.

This DCAF bulletin has been coordinated with CEMP-ET.


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